Collaborative Forest Landscape Restoration Program

Background:

Department and Agency Priority

"Our shared vision begins with restoration. Restoration means managing forest lands first and foremost to protect our water resources, while making our forests more resilient to climate change."

Tom Vilsack
USDA Secretary

"We will increase our focus on restoration of our forest and grassland ecosystems; restoration to increase resilience to ensure these systems are able to adapt to changes in climate."

Tom Tidwell
Forest Service Chief

Background:

The Omnibus Act of 2009

- The Collaborative Forest Landscape Restoration Program was authorized in Title IV of the Omnibus Public Land Management Act of 2009 (Omnibus Act)

- A Federal Advisory Committee was established to evaluate and recommend proposals for funding. The panel met in July 2010 in an open meeting and recommended 10 projects for funding

Background:

Purpose of CFLR

- From Title IV of the Omnibus Act: "The purpose of this title is to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes through a process that
  - encourages ecological, economic, and social sustainability;
  - leverages local resources with national and private resources;

- Requirements include:
  - A 10 year restoration strategy that is complete or substantially complete that identifies and prioritizes ecological restoration treatments across a 50,000 acre or larger landscape on primarily National Forest System lands
  - Must be developed and implemented through a collaborative process
  - Incorporates best available science and application tools
  - demonstrates the degree to which--
    - Various ecological restoration techniques--
      - achieve ecological and watershed health objectives; and
      - affect wildfire activity and management costs; and
    - the use of forest restoration byproducts can offset treatment costs while benefitting local rural economies and improving forest health."

2010 Projects

- In August 2010, the Secretary selected 10 projects for funding and allocated $10 million

- Projects selected in Fiscal Year 2010 include:

Region	Project Name	State
1	Southwestern Crown of the Continent	Montana
1	Selway- Middle Fork Clearwater	Idaho
2	Uncompahgre Plateau	Colorado
2	Colorado Front Range	Colorado
3	4 Forest Restoration Initiative	Arizona

Region	Project Name	State
3	Southwest Jemez Mountains	New Mexico
5	Dinkey Landscape	California
6	Deschutes Skyline	Oregon
6	Tapash	Washington
8	**Accelerating Longleaf Pine Restoration**	**Florida**

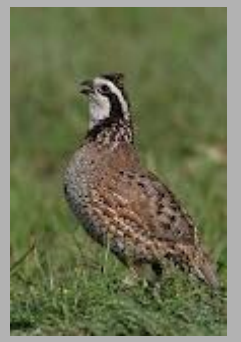
Focus on Longleaf Pine

The Range-wide Conservation Plan For Longleaf Pine

- Developed by a Regional Working Group representing 22 organizations
- Supported by USDA Forest Service, Dept. of Defense, and U.S. Fish & Wildlife Service
- Released in March 2009

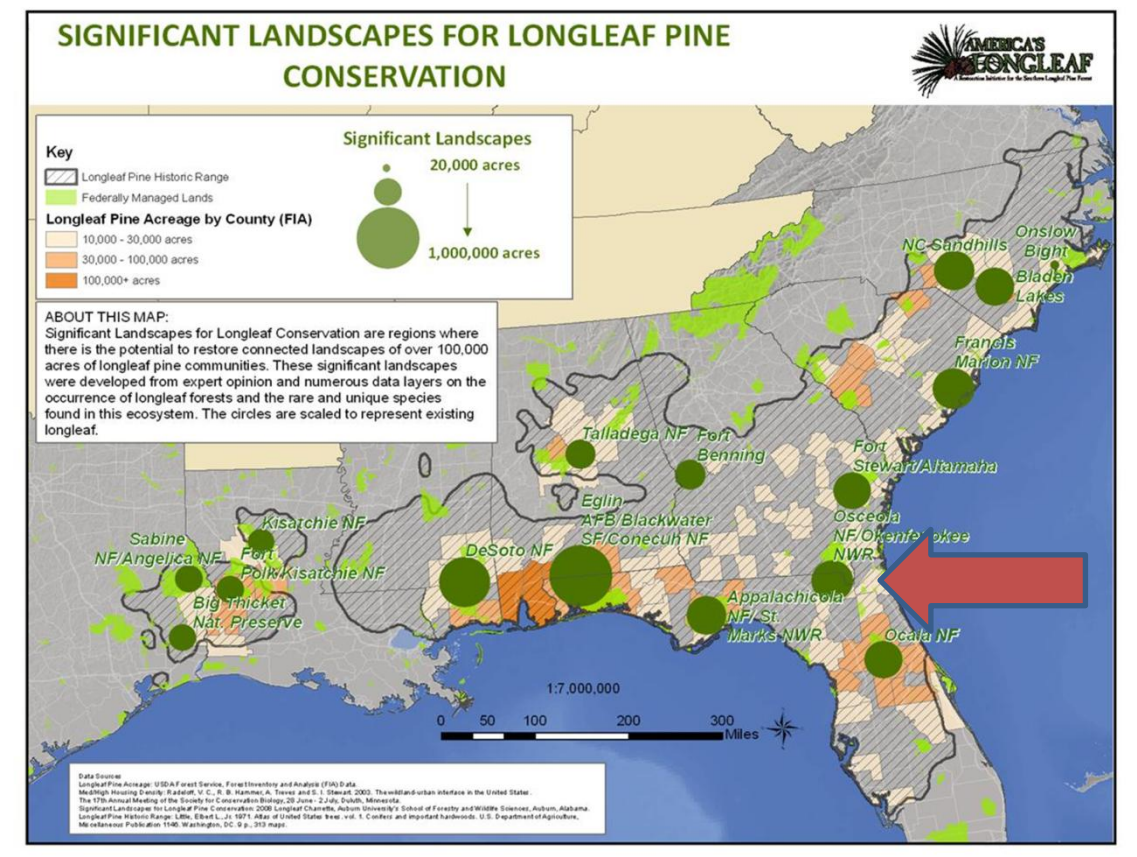
The Longleaf Ecosystem Connects Many Focus Areas

- T&E and Sensitive Species Habitat
- Climate Change mitigation
- Woody biomass developments
- Watershed health
- Economic viability



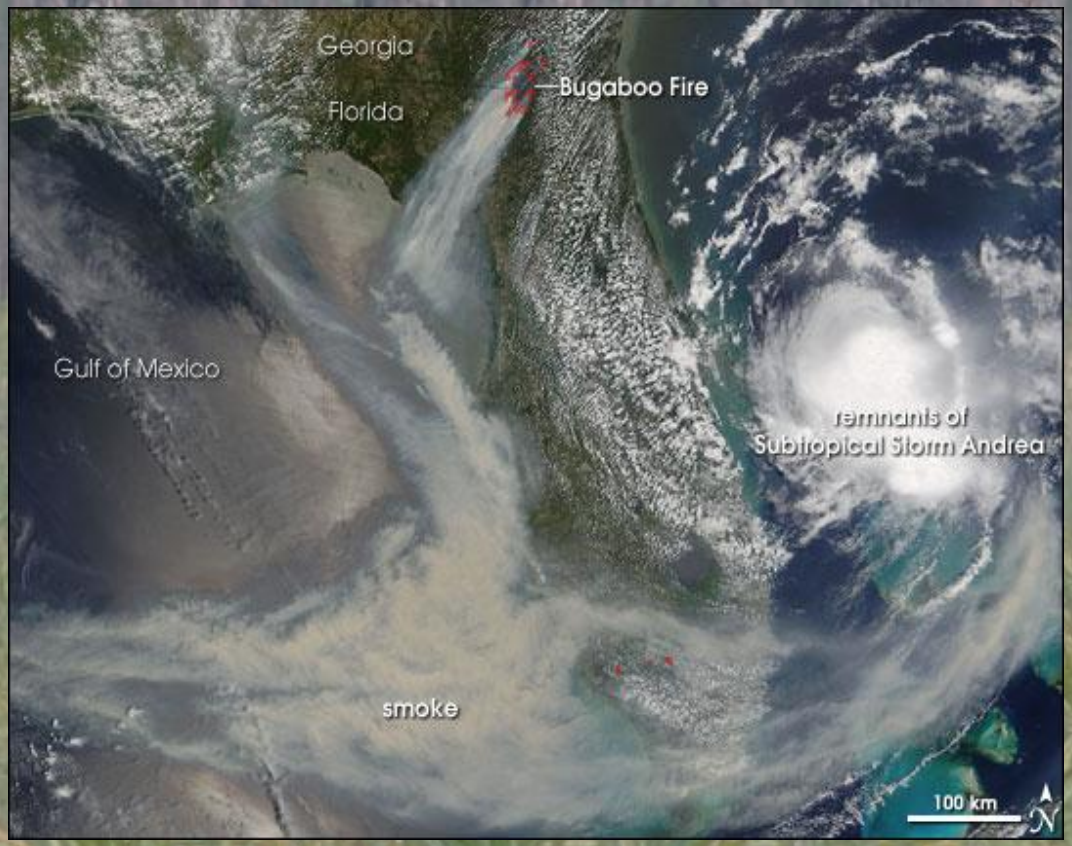
Why The Osceola National Forest

- The Forest is located within one of the significant longleaf pine conservation areas

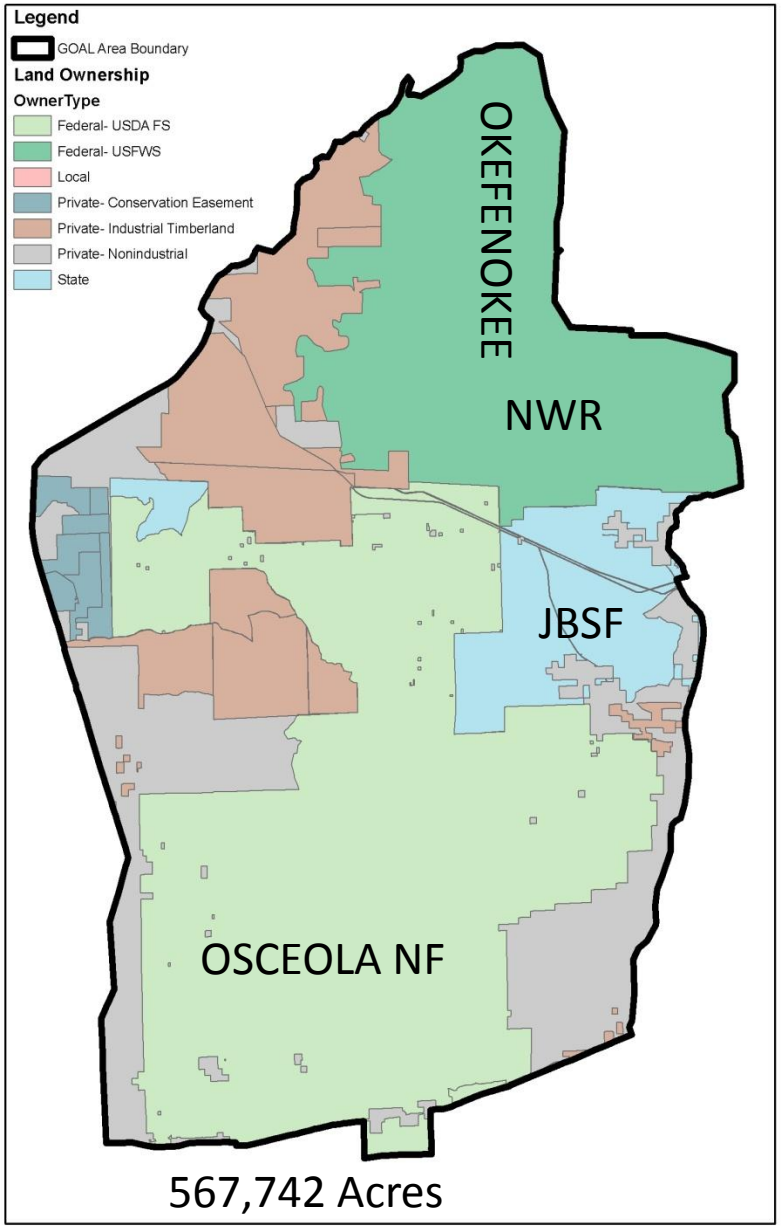


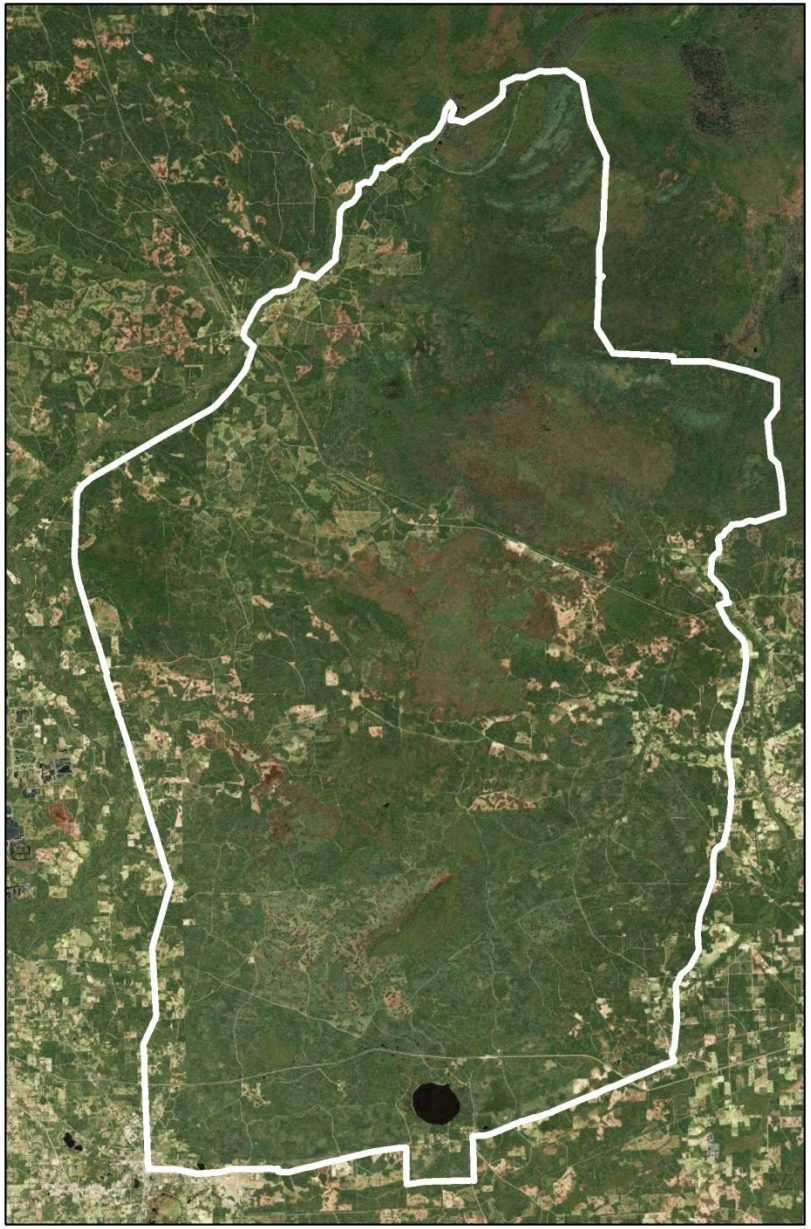
Why The Osceola National Forest

- **The Osceola and the surrounding lands have been plagued by wildfires**
- **During the past 12 years, over 31 million dollars were expended on wildfire suppression with a wildfire rehabilitation cost of 3.6 million dollars**
- **The Bugaboo Fire in 2007 was the largest wildfire east of the Mississippi River and caused the closure of Interstates 10 and 75 for several days**



CFLR GOAL AREA LAND OWNERSHIP





Why The Osceola National Forest

- The forest developed an **Ecological Condition Model** (ECM) to assess current conditions relative to desired future conditions along with prioritization models for fire, timber harvest and mechanical fuel reduction
- The ECM revealed that almost 50% of the Osceola NF is in poor ecological condition

Purpose of ECM

Dramatically increase the health of forest ecosystems at a landscape scale by:

- Assessing current ecological condition vs. DFC using ranked tiers
- Maximizing integration of program areas and dollars
- Prioritizing treatment areas and activities
- Balancing restoration with maintenance
- Increasing management efficiencies

Benefits

1. ECM process results in interdisciplinary synergy
2. Maximizes analytical powers of GIS for land management planning
3. Tracks changes in ecosystem condition
4. Provides an essential mid-level planning tool
5. Allows more open and transparent management decisions
6. Facilitates collaboration with public/private agencies and stakeholders
7. Facilitates development of DFCs and Objectives during Forest Plan revision
8. Demonstrates management progress (e.g., annual monitoring report)
9. Displays possible future landscape conditions resulting from different management scenarios

Introduction to 3 Step Process

1. **Ecological Condition Model (ECM)**
   Assess health of the prominent ecosystem types (Flatwoods on Osceola NF).

2. **Prioritization Models**
   Identify and prioritize management actions (More Prescribed Fire, Mechanical Fuels Treatment, Timber Thinnings, Ground Cover Restoration)

3. **Landscape Scale Assessment (LSA)**
   Develop as a mid-level planning tool.

Model Steps Overview

Ecological Condition Model

1. **Defined condition categories (Tiers)**
2. **Identified data needs**
3. **Developed data layers using GIS**
4. **Established photo points; made ocular estimates of Tiers**
5. **Built the model in GIS**
6. **Assessed model accuracy using #4**

Prioritization Models

1. **Used ECM and related inputs to prioritize management needs**
2. **Update model as needed**

DFC of Pine Flatwoods

- Fire: Vegetation patterns determined by Rx burning and sustainable harvest
- Overstory: Mature pine forest with multiple age classes
- Midstory: No hardwood midstory
- Understory: Intact and healthy native pyrogenic groundcover
- Wildlife: Healthy populations of typical native species

Tier Classification

Tier 1
Excellent/ Maintenance Condition

Tier 2 Good/ Maintenance Condition

Tier 3 Fair/ Transitional Condition, Some Restoration Required

Tier Classification

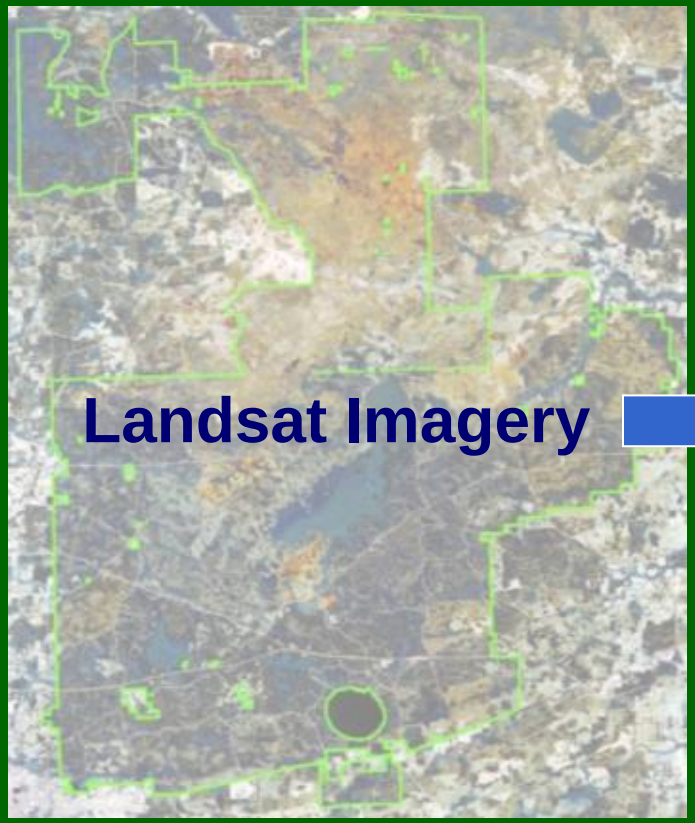
Tier 4 Poor Condition,
Restoration Required

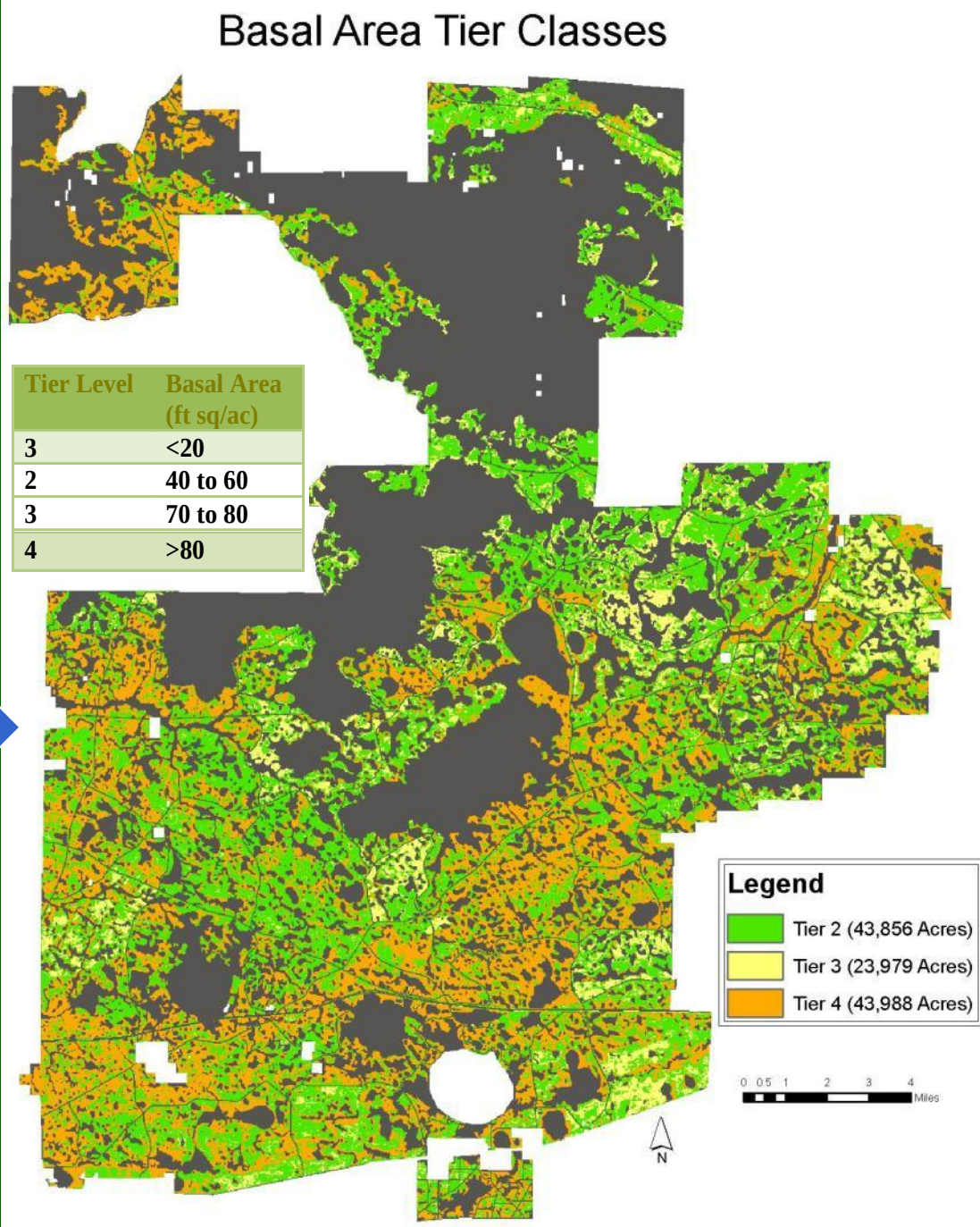
Tier 5 Very Poor Condition,
Restoration Required

OSCEOLA ECM Inputs

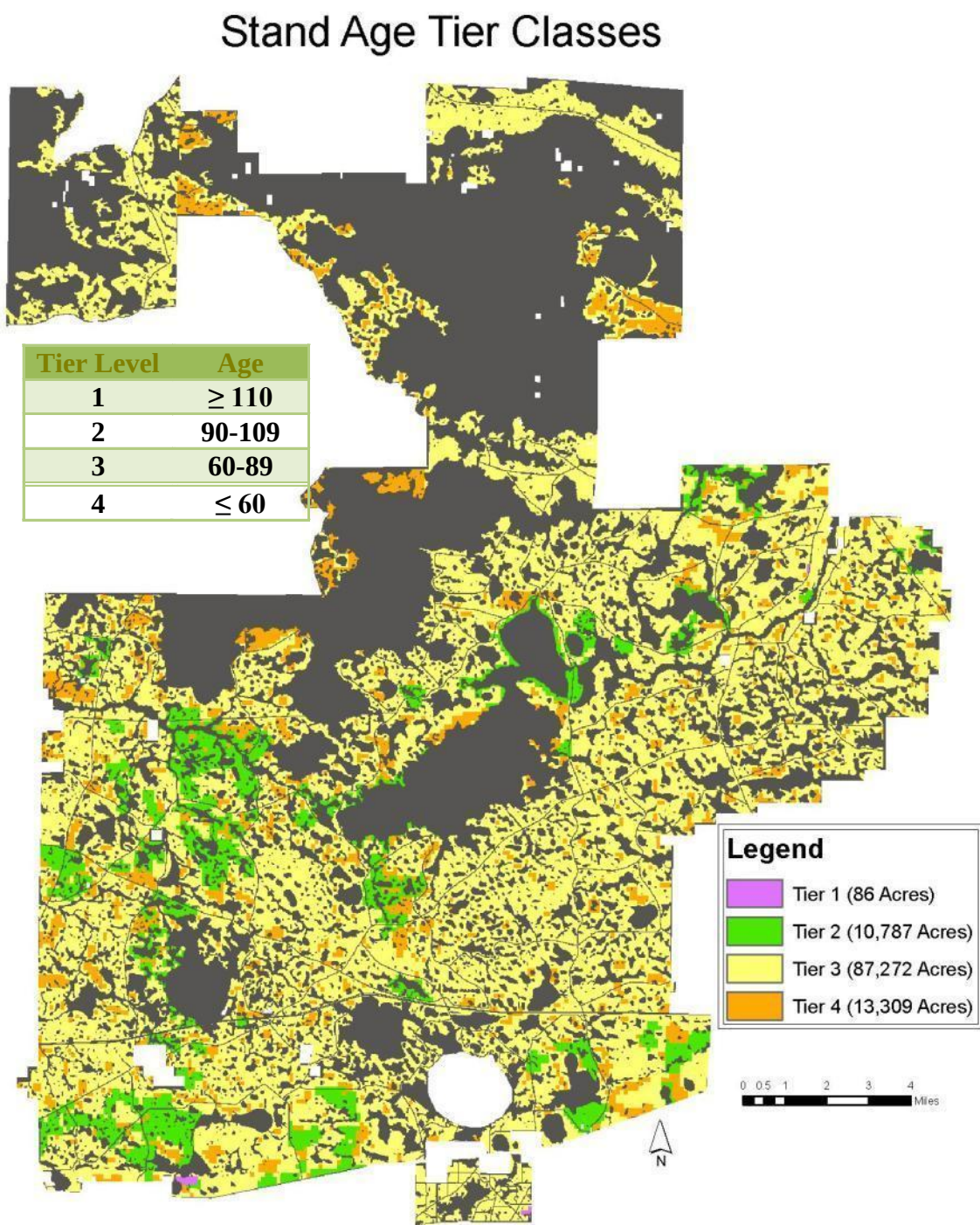
- **Basal Area**
- **Stand age**
- **Fire**
  - –Fire severity
  - –Number of fires
  - –Time since last fire

ECM Input 1: Basal Area



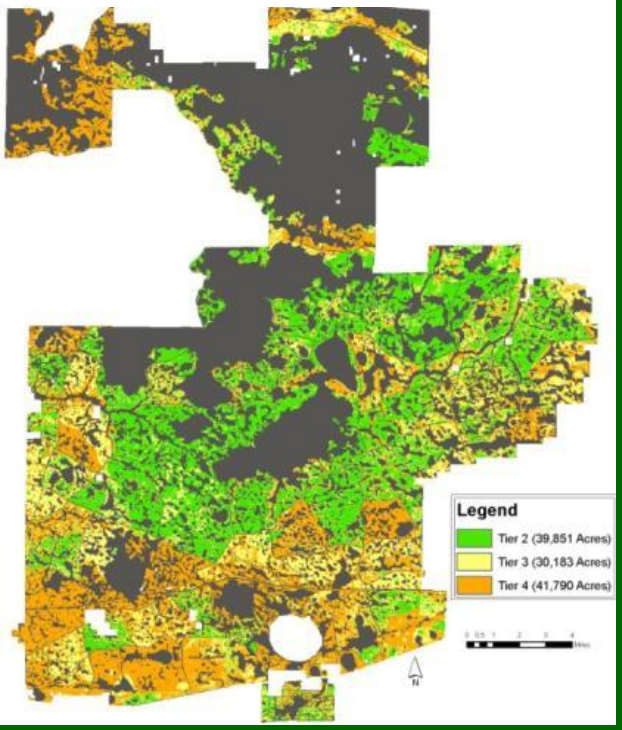


ECM Input 2: Stand Age



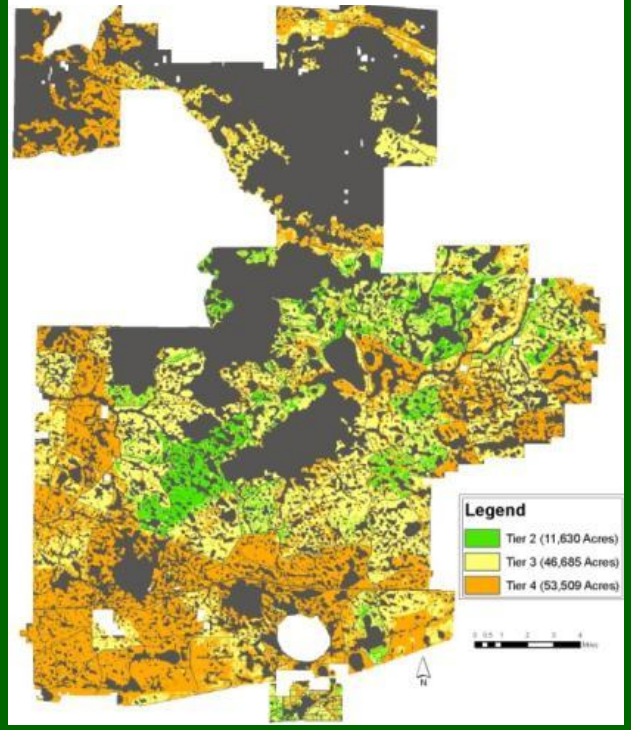
ECM Input 3: Fire Score

Fire Severity Tier Classes



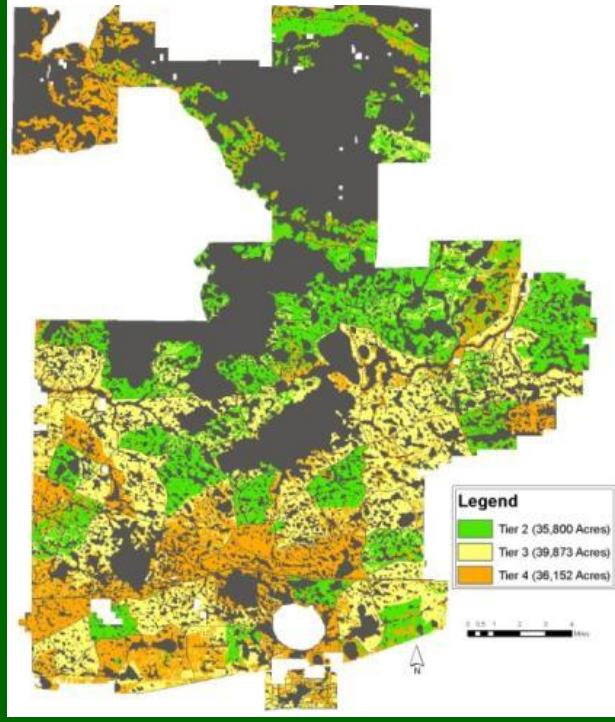
60%

Number of Fires Tier Classes



30%

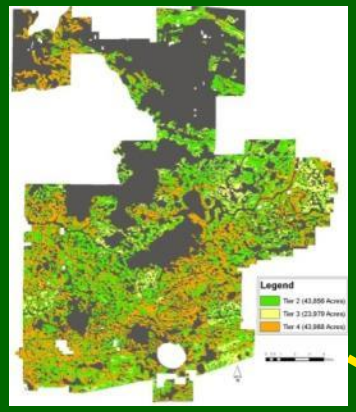
Time Since Fire Tier Classes



10%

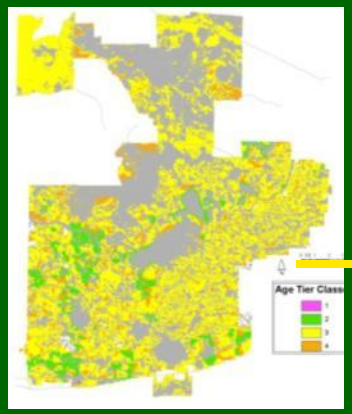
Input Recap

Basal Area Tier Score



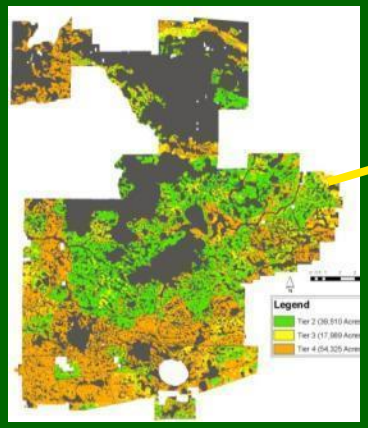
40%

Stand Age Tier Score



20%

Overall Fire Tier Score



40%

2009 ECM Results

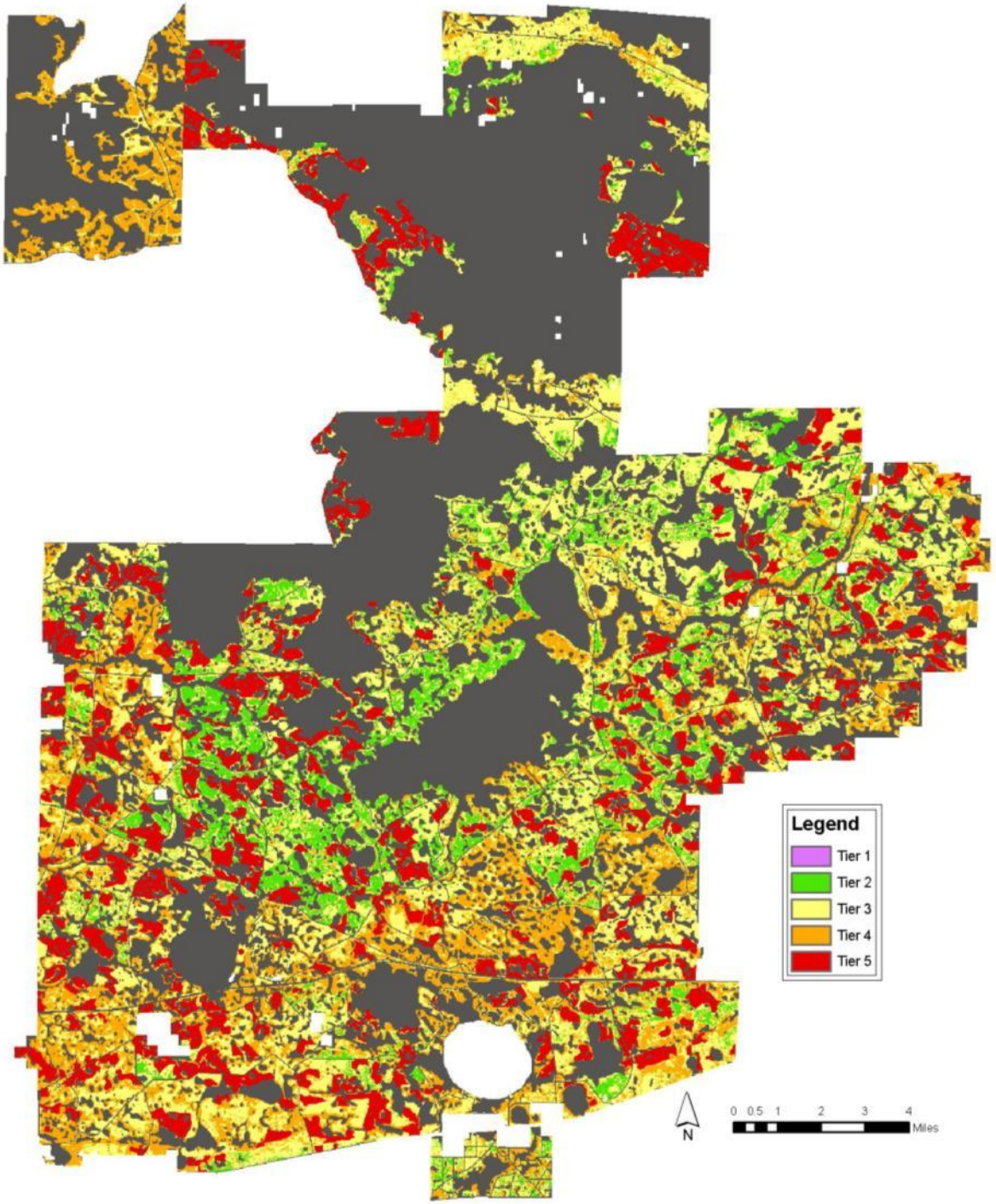
2009 ECM Tier Classes

Flatwoods Condition

Good-Excellent (Tier 1,2)
13%

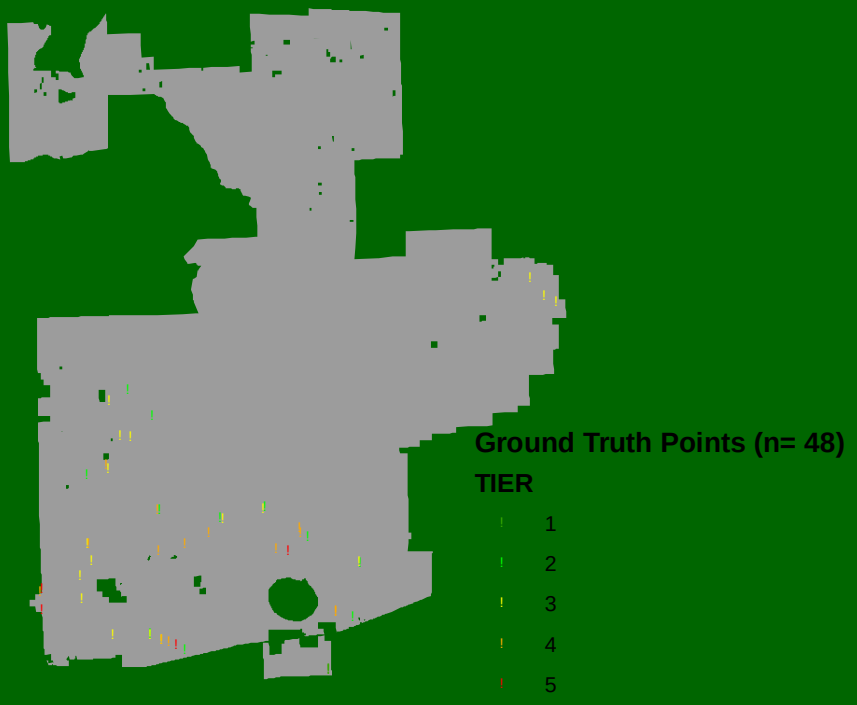
Transitional (Tier 3)
40%

Poor-Very Poor (Tier 4,5)
47%



ECM Tier Score- Accuracy Assessment

- 48 photo points



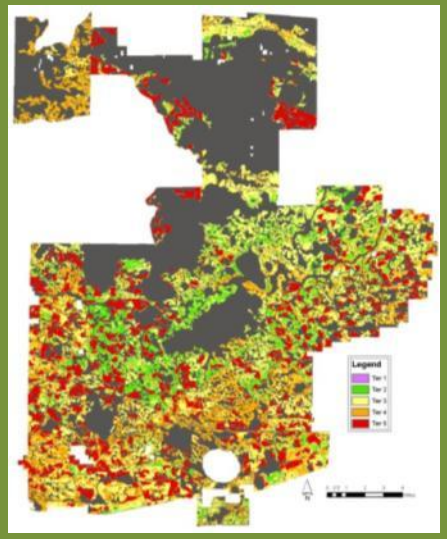
Model placed 39 out of 48 points in the correct tier class. The other 9 points were never off more than one tier.

- Accuracy Assessment

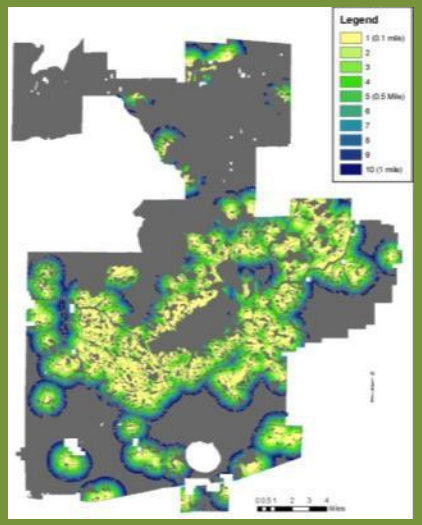
		MODEL TIERS					
		1	2	3	4	5	% correct
FIELD TIERS	1	2	0	0	0	0	100%
	2	0	7	4	0	0	63%
	3	0	1	16	0	0	94%
	4	0	0	2	11	1	79%
	5	0	0	0	1	3	75%

OVERALL: 81%

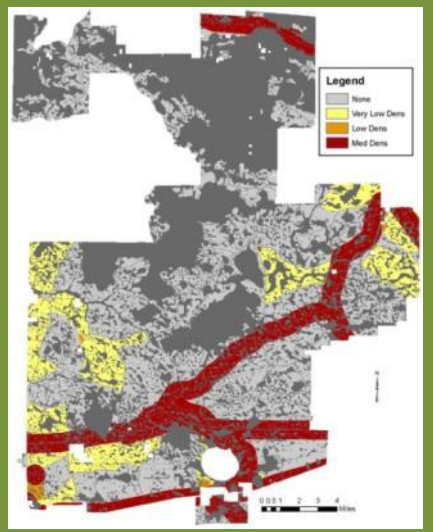
Prioritization Input Layers:



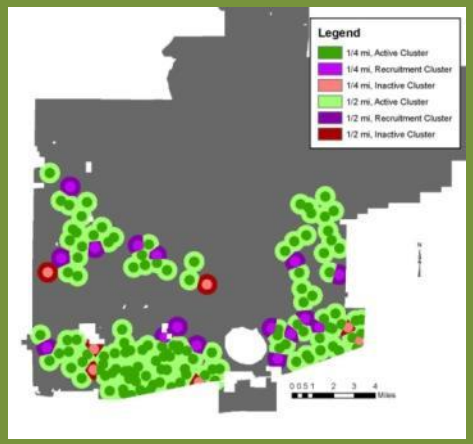
ECM Tiers



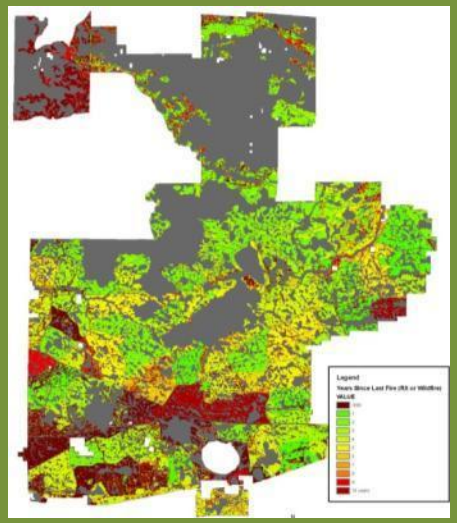
Proximity to ECM Tier 1 and Tier 2 Areas



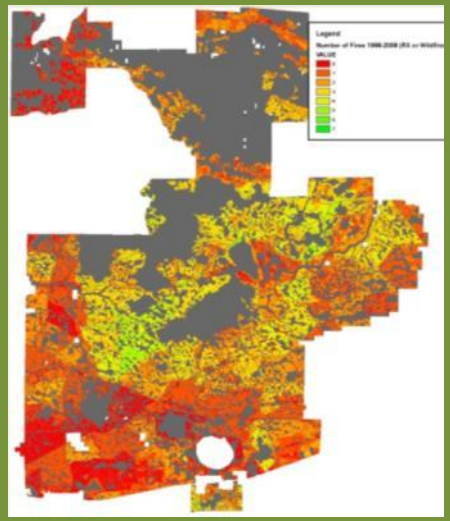
WUI



RCW Foraging Areas



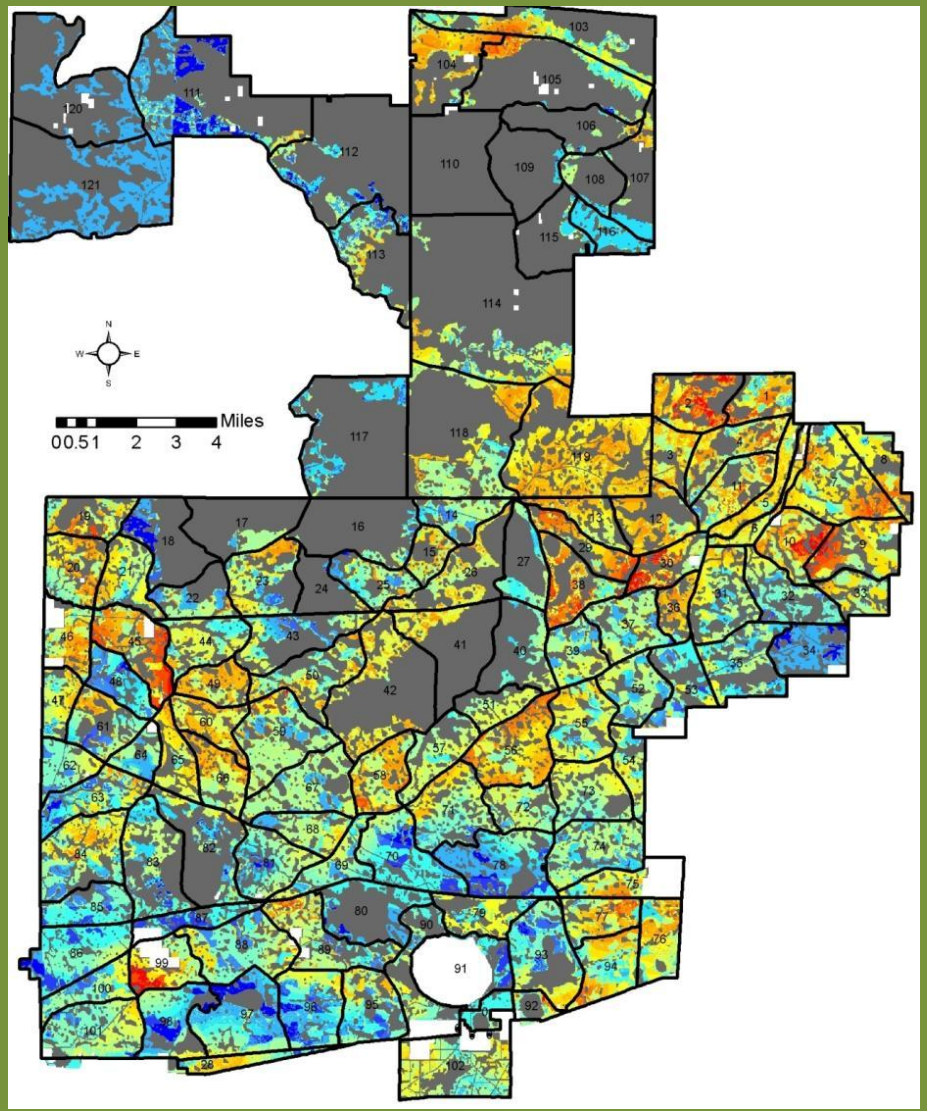
Time Since Last Fire



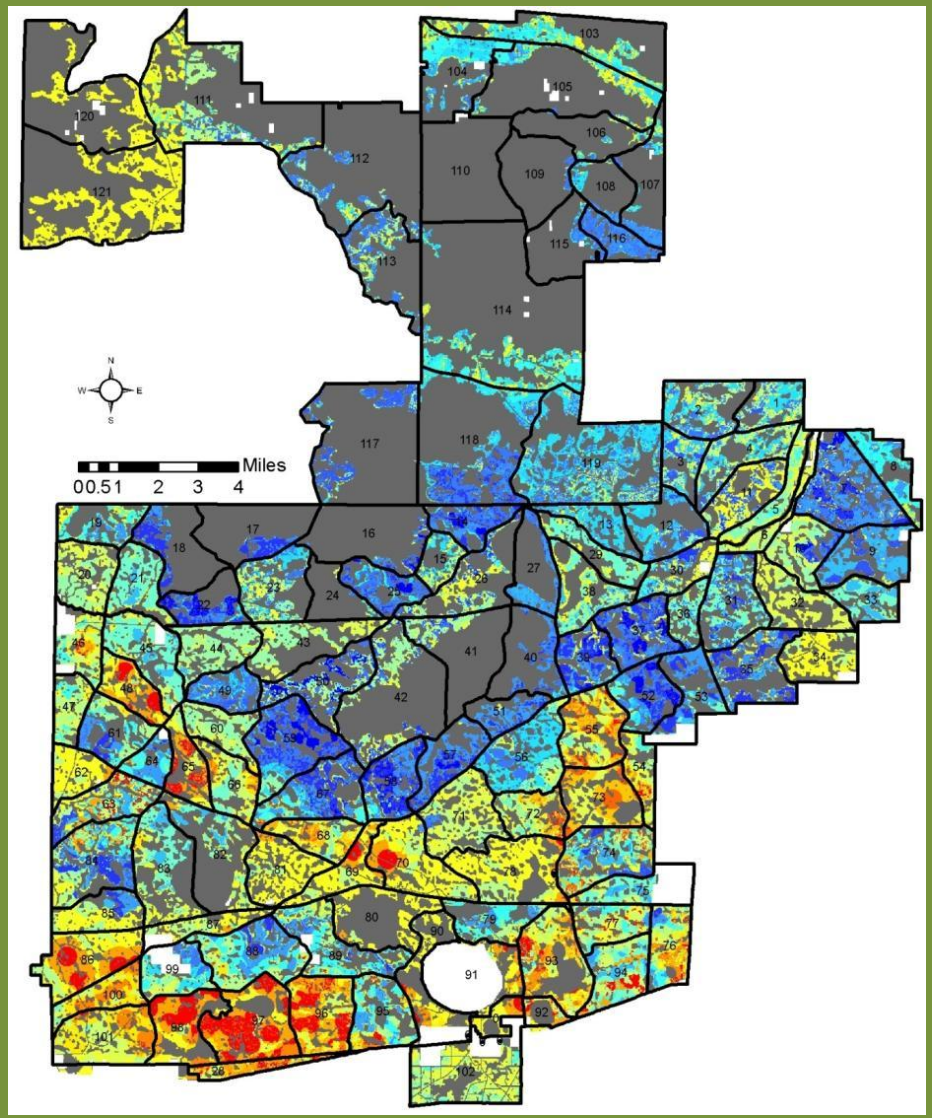
Number of Fires (1998-2009)

Prioritization Models:

Fire Prioritization (Maintenance Emphasis)

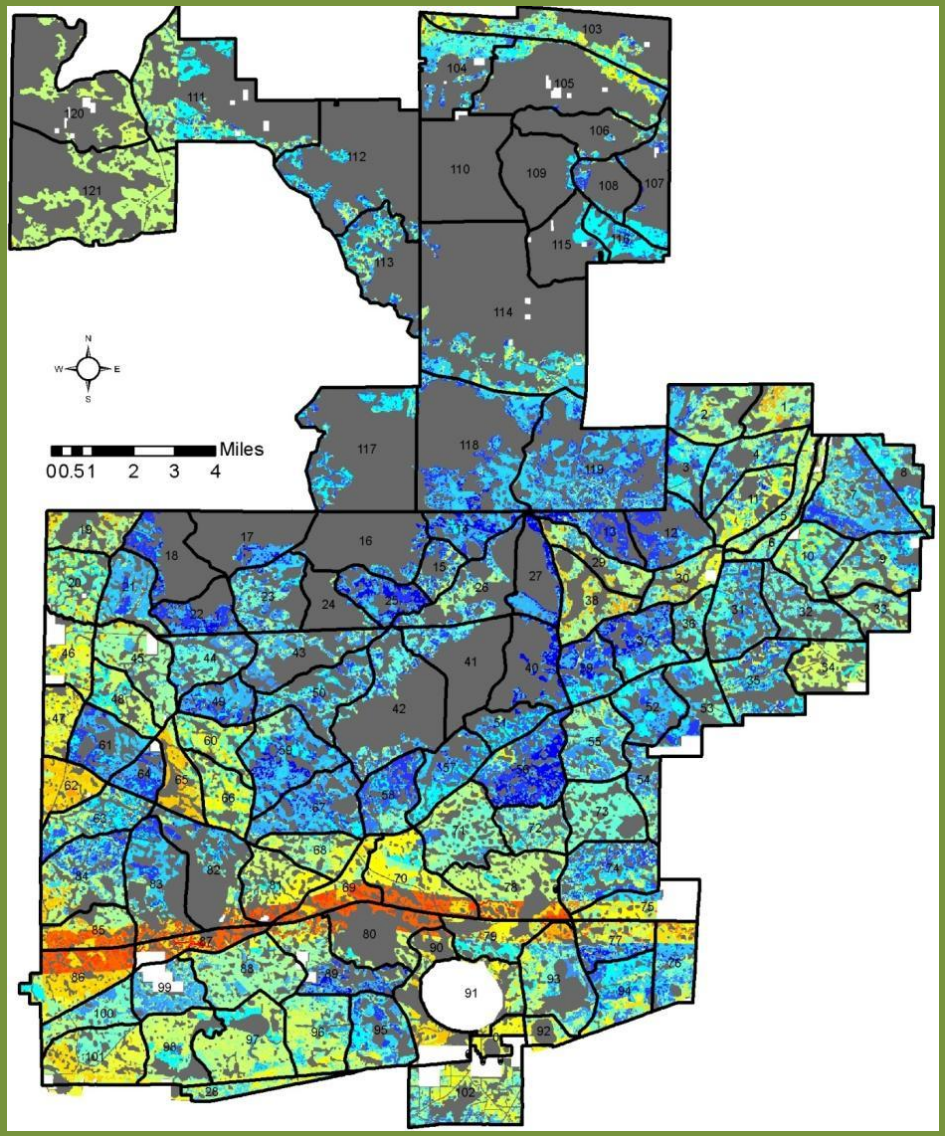


Fire Prioritization (Heavy Fuels and RCW)

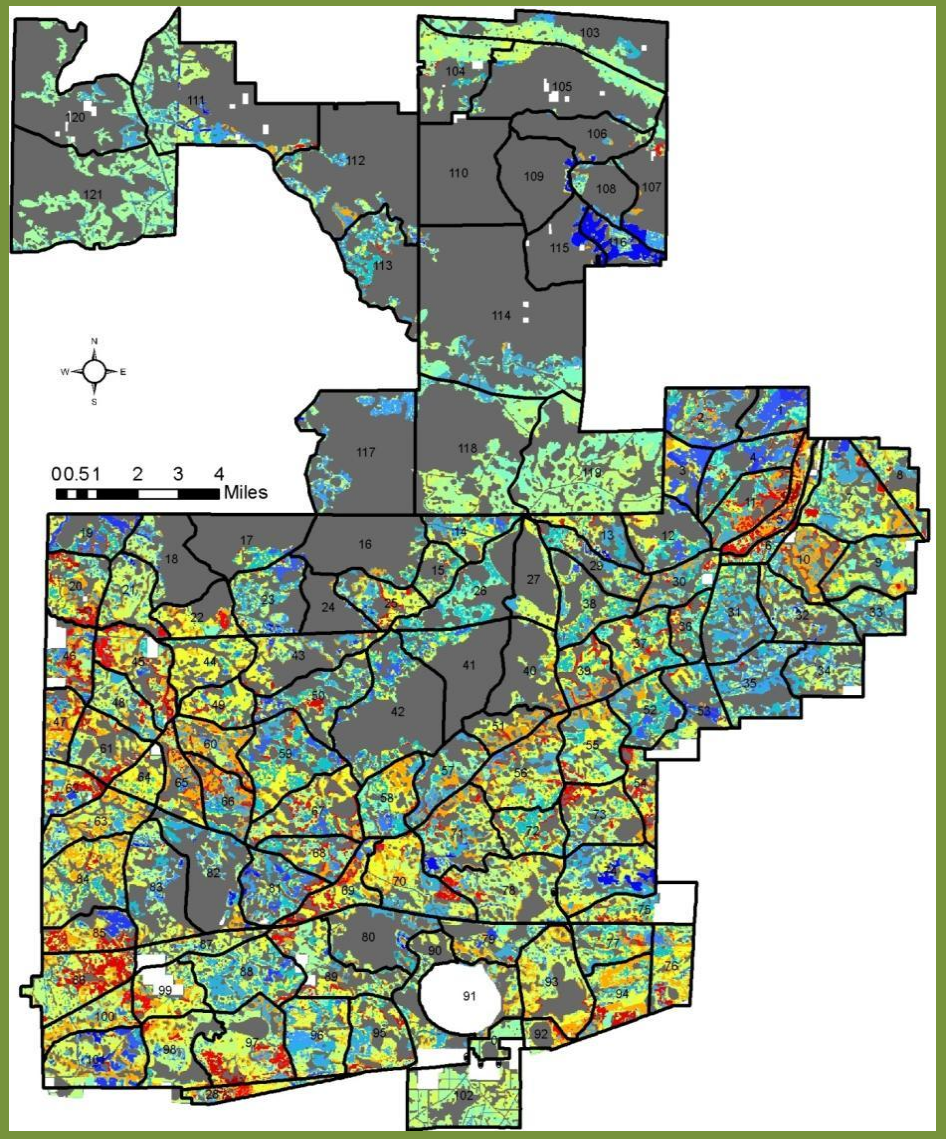


Prioritization Models:

Mechanical Fuels Treatment



Timber Thinning



Planned Activities

1. Double the annual prescribed fire acreage to 50,000 acres for a total of 500,000 burned in 10 years

2. Mechanically reduce fuel loads on 10,000 acres

3. Increase timber harvest from thinning less than 2,000 acres a year to 5,000 acres a year for a total of 44,000 acres thinned over the next 10 years

4. Restore ground cover by light roller chopping 21,000 acres followed by application of prescribed fire

5. Restore hydrology by correcting known problems on 309 miles of roads and 90 miles of old fire lines

Stakeholder Support

"These models provide a great roadmap for how the Forest Service will accomplish the goals and objectives in the Forest Plan that is otherwise lacking."

"Before using these mid-level planning tools, there appeared to be no rhyme-or-reason for individual site-specific projects – the only common denominator seemed to be the removal of timber. While maybe not so, it caused groups like WildLaw to question almost every proposed action."

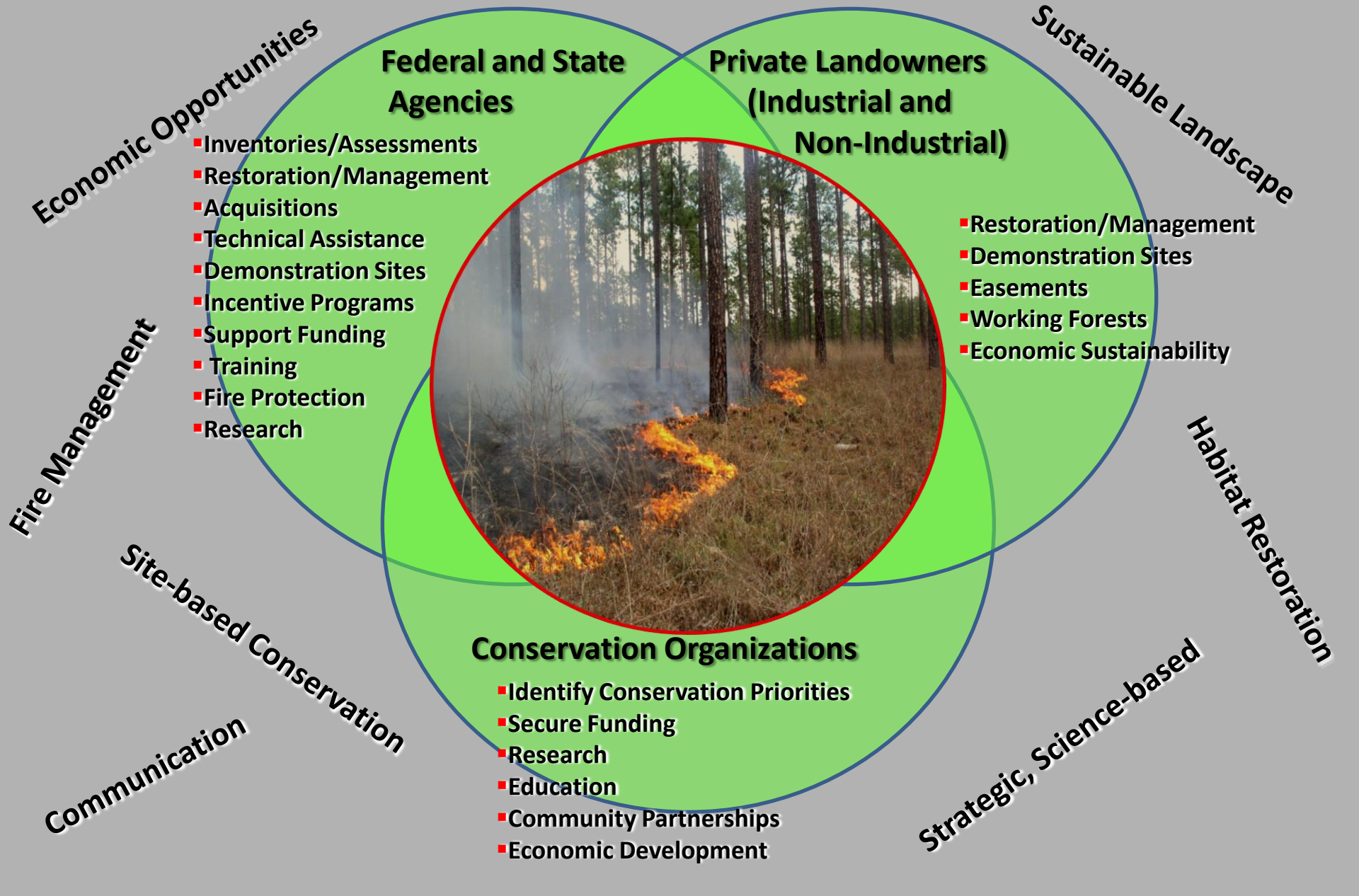
"The models allow any issues of public concern to be resolved before time and effort have been put into site-specific projects."

"The models provide scientific support for the Forest Service's intentions, they increase the public's level of trust in the Forest Service as public land stewards, and lay a foundation for cooperative work between the Forest Service and conservation advocacy groups."

-**Brett Paben**
Senior Staff Attorney
WildLaw

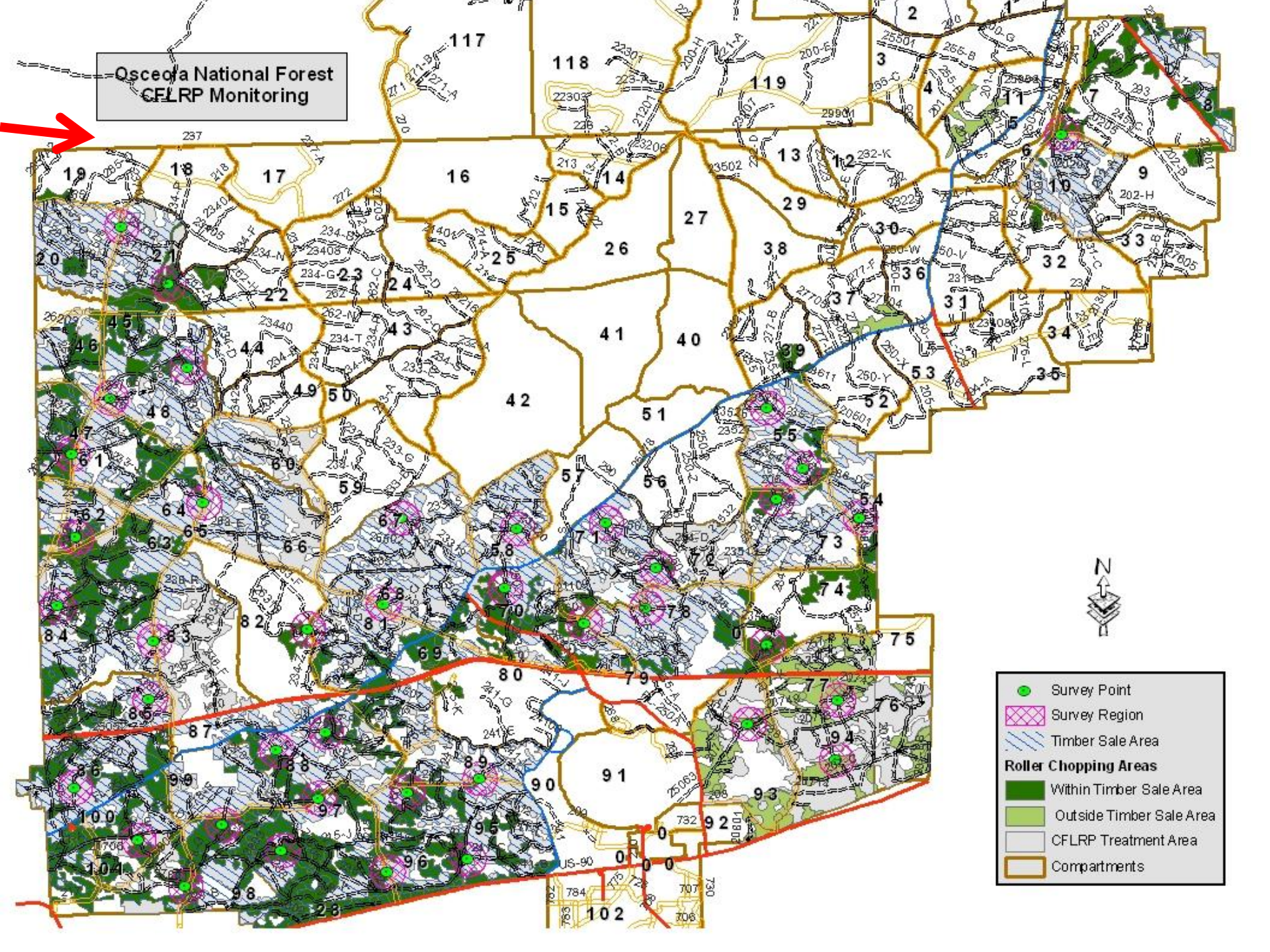
Longleaf Pine Ecosystem Restoration

A Collaborative Partnership



Participation of Adjacent State and Private Land Owners

1. Utilize Stevens Funds to help cooperating state and private landowners conduct restoration treatments
2. Revenue from timber thinnings will be accumulated and retained to fund restoration treatments

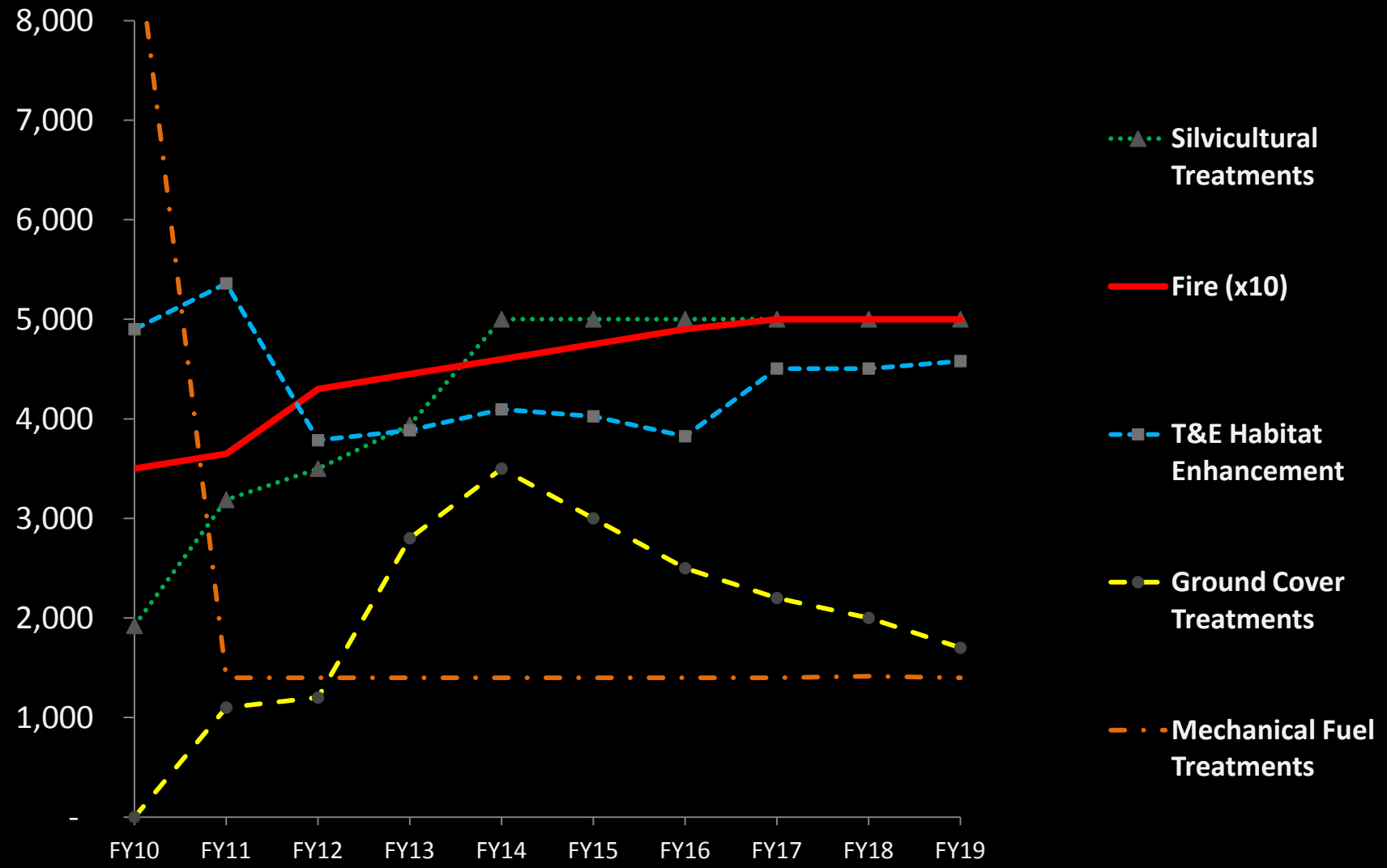

Osceola National Forest
CFLRP Monitoring
N
Survey Point
Survey Region
Timber Sale Area
Roller Chopping Areas
Within Timber Sale Area
Outside Timber Sale Area
CFLRP Treatment Area
Compartments

Wildfire Reduction

- Ecological restoration treatments reduced the average wildfire size from 526 acres in untreated areas to only 2 acres in treated areas.

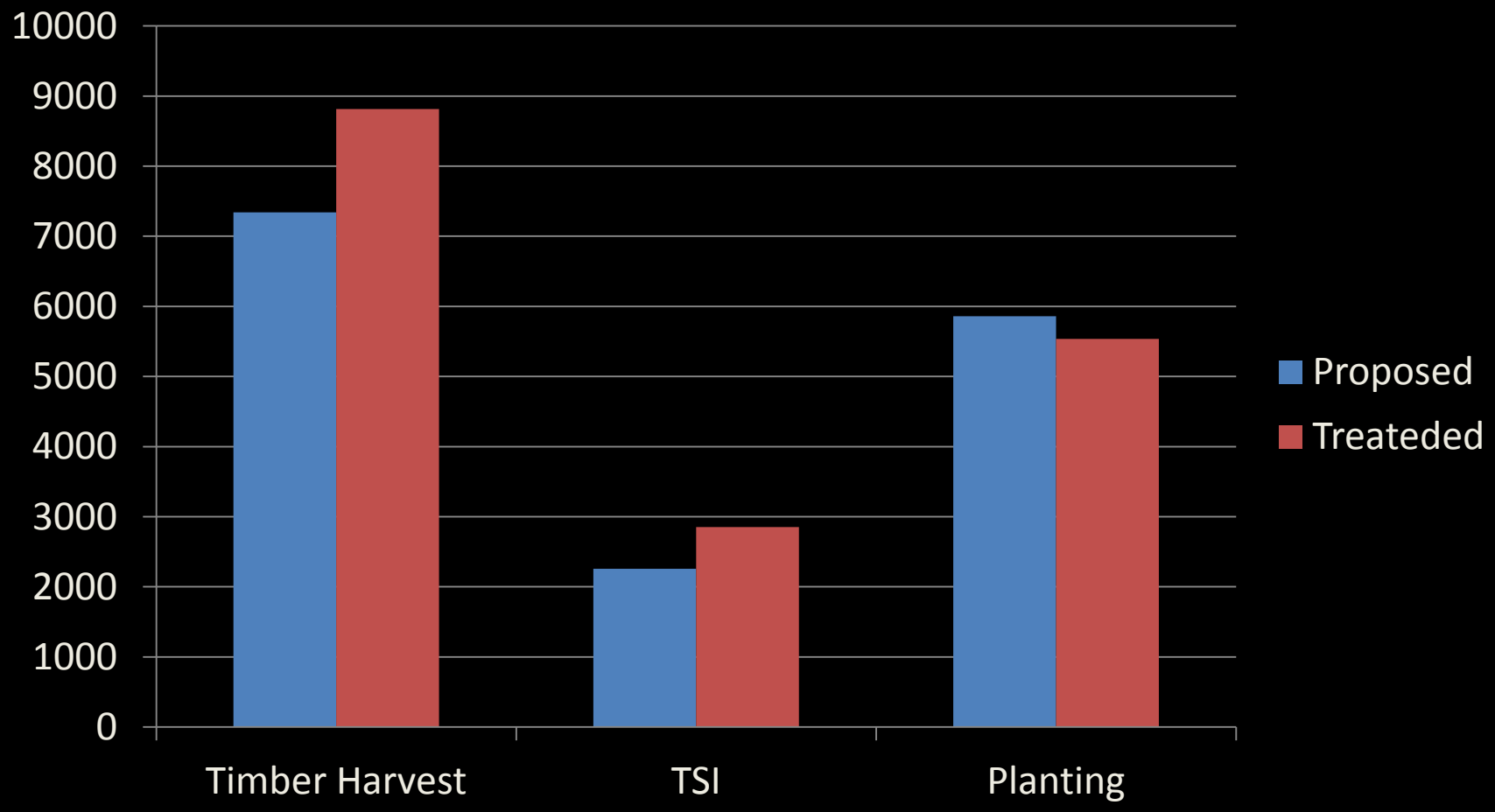
- All wildfires in treated areas were less than 14 acres compared to several large wildfires in untreated areas, the largest of which consumed 11,025 acres prior to containment.

How are we sequencing work?

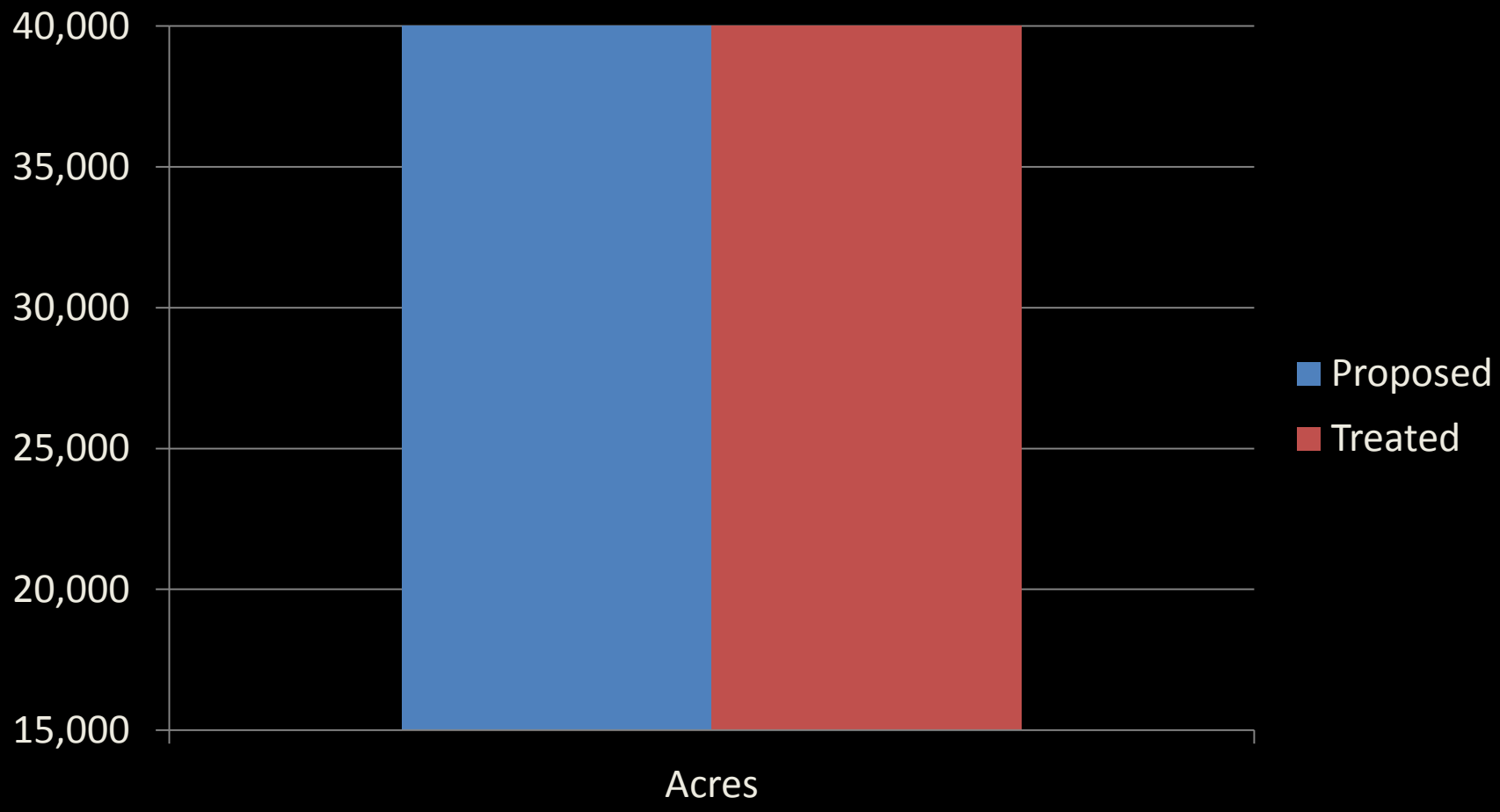


Forecasted CFLRP Accomplishments in Acres FY10 – FY19

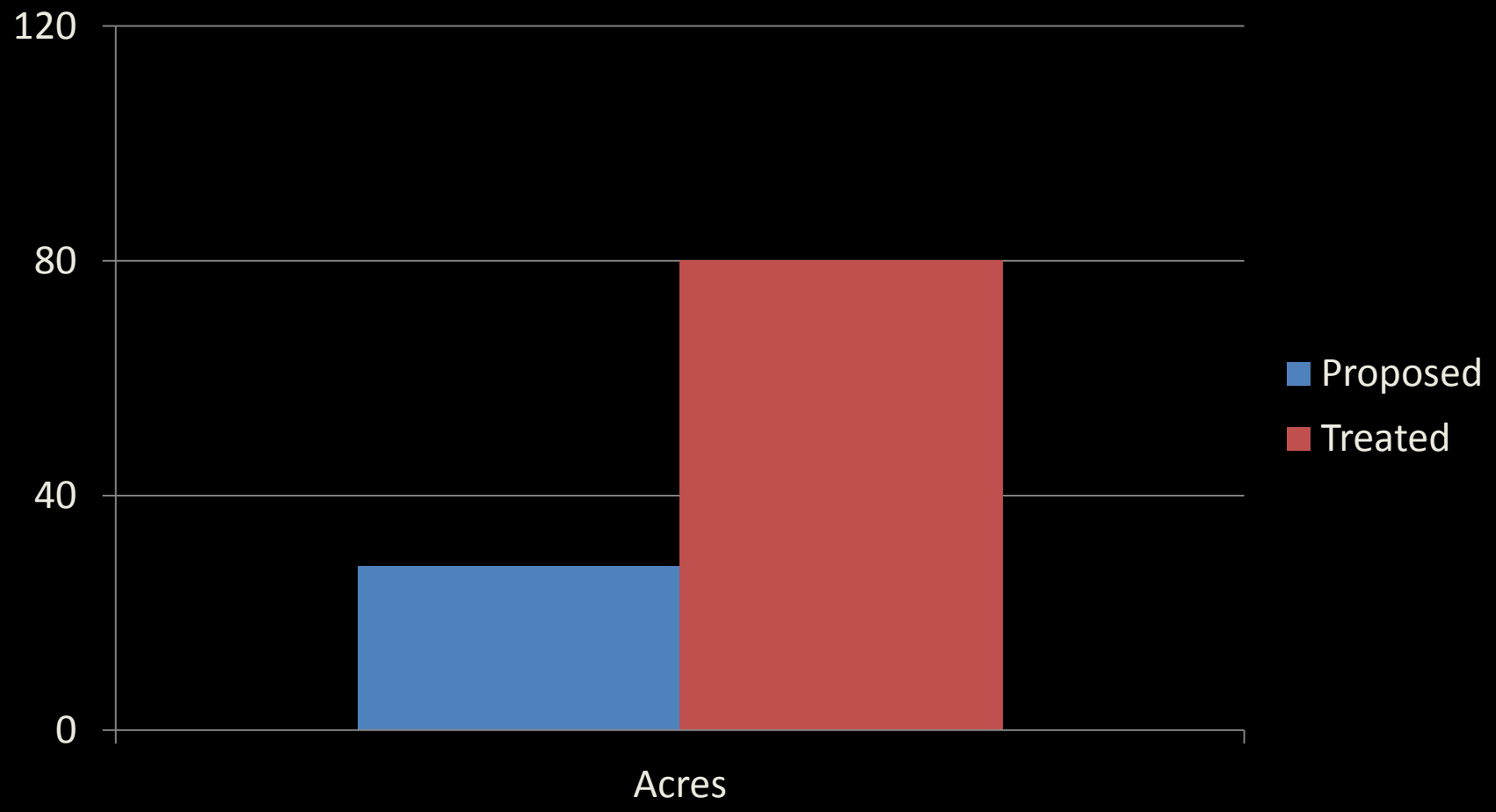
Timber Harvest, TSI and Planting



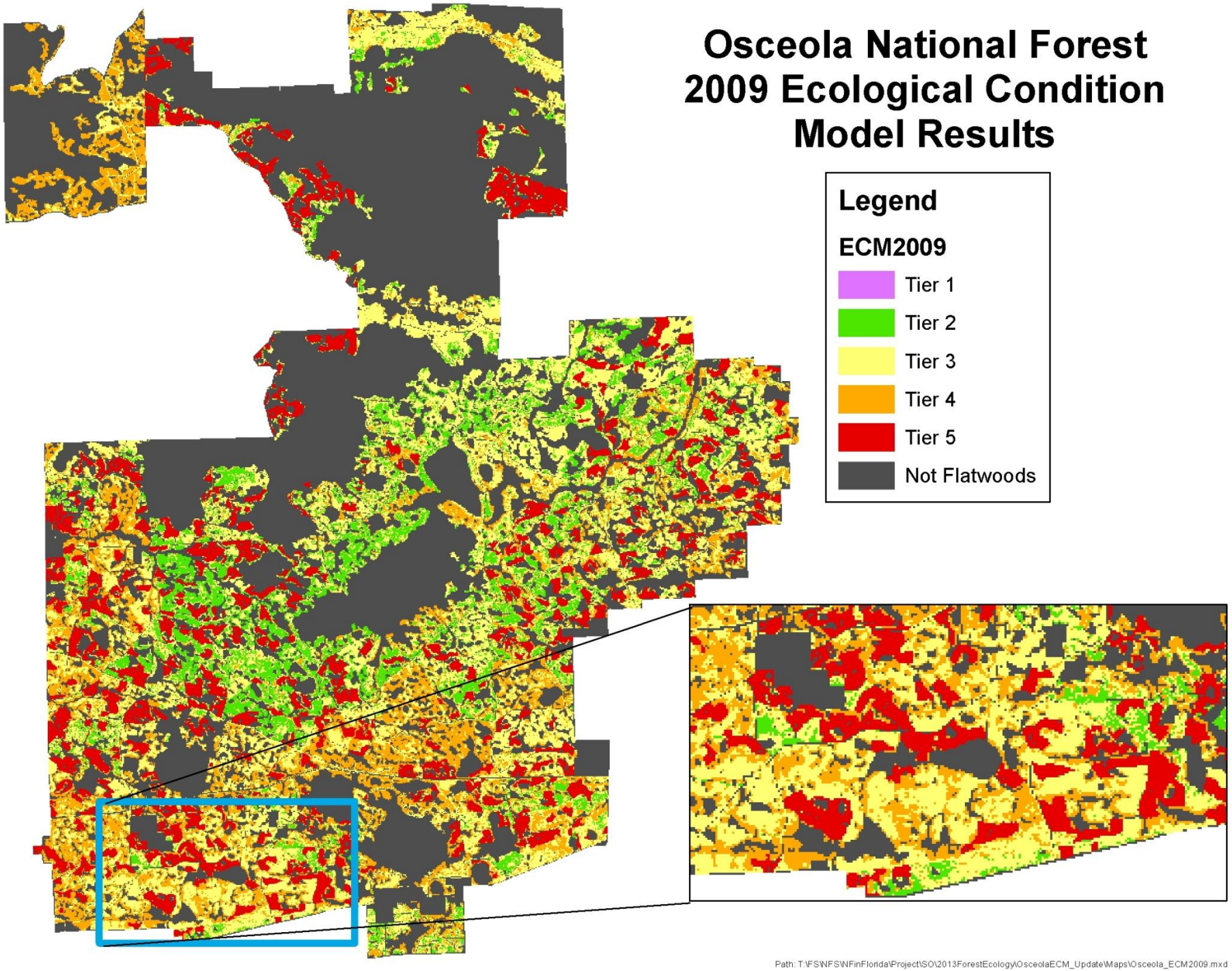
Fuels Management



NNIS Treatment



Osceola National Forest 2009 Ecological Condition Model Results



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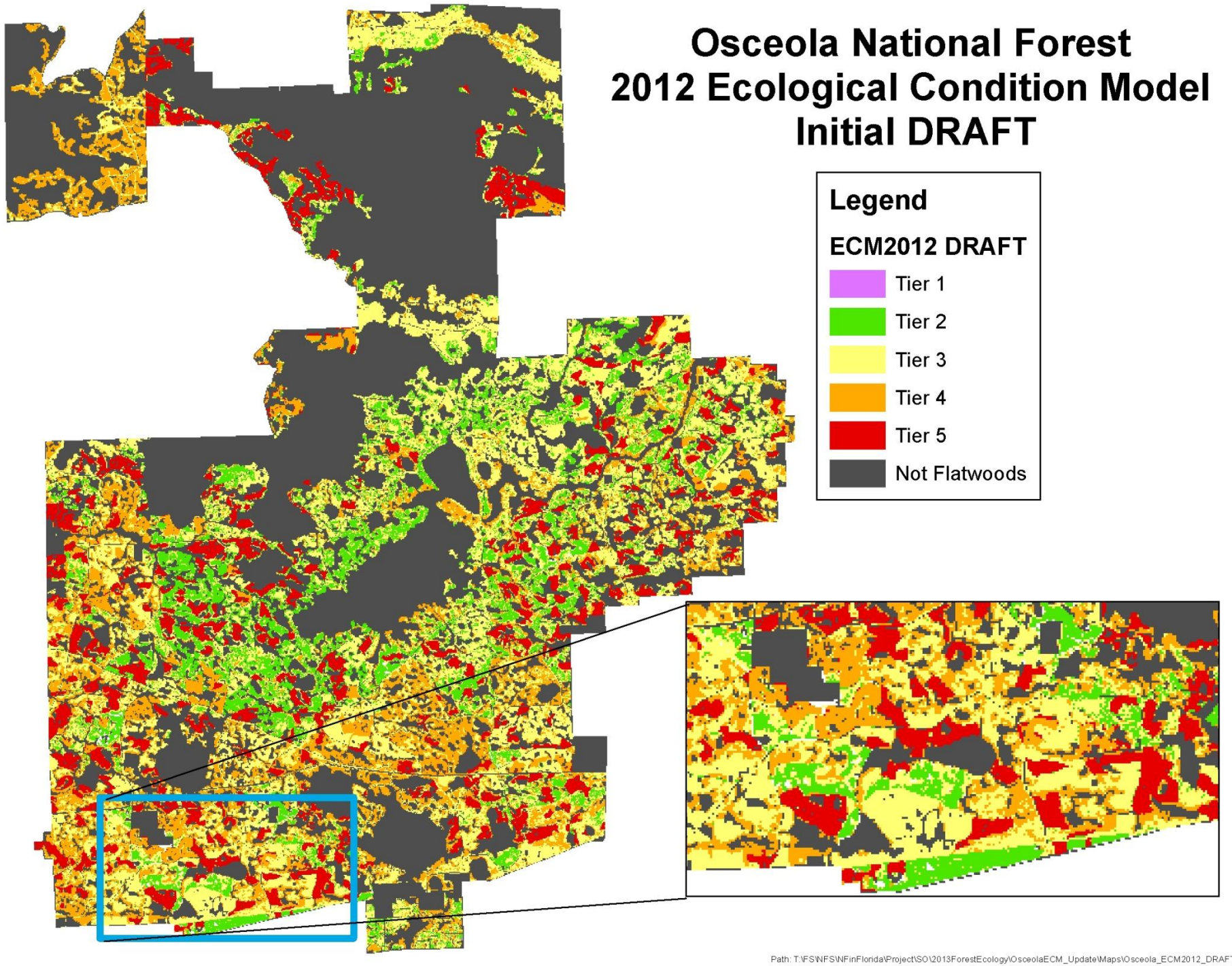
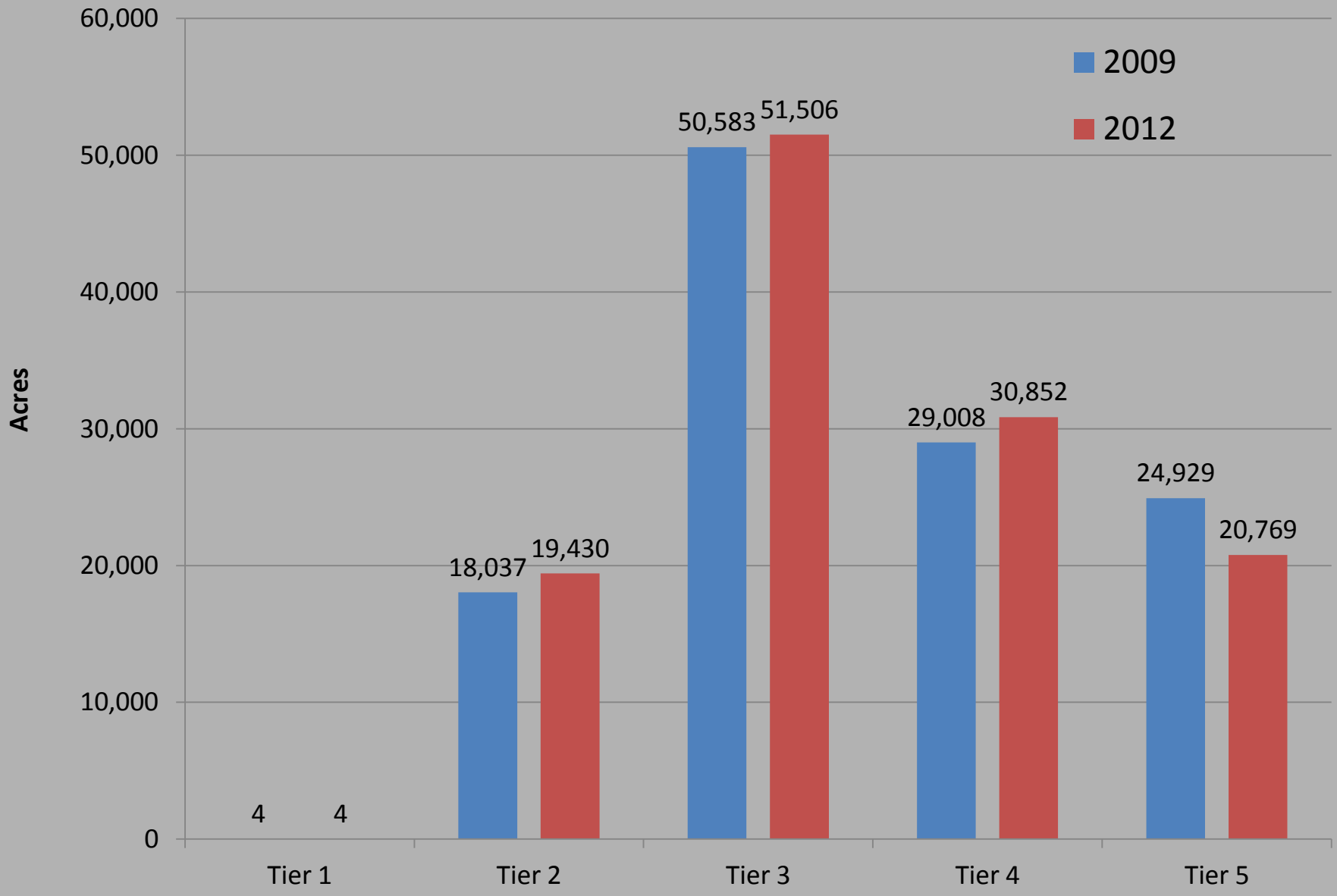
Osceola National Forest
2012 Ecological Condition Model
Initial DRAFT

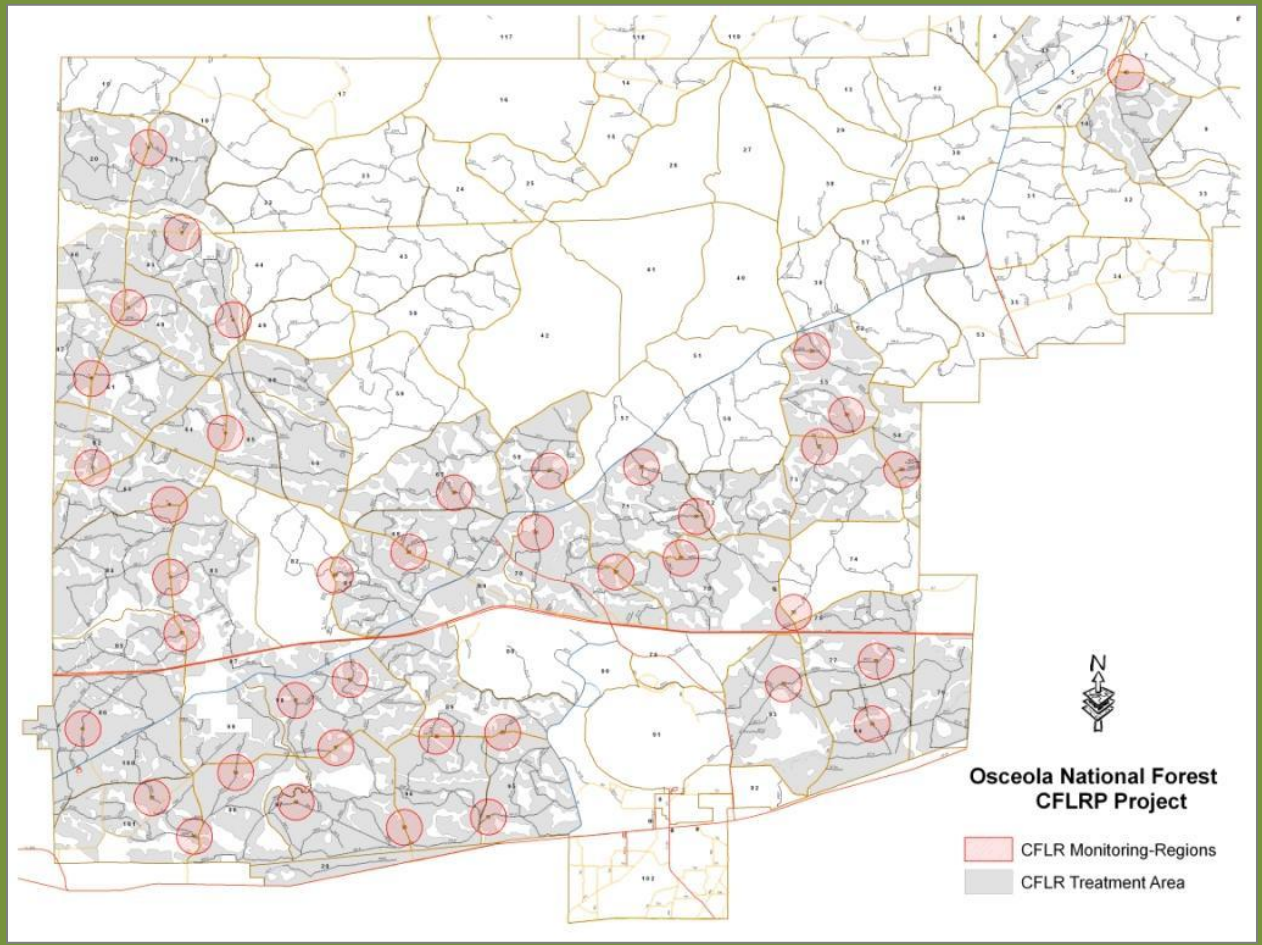


2012 ECM Draft vs. 2009 ECM



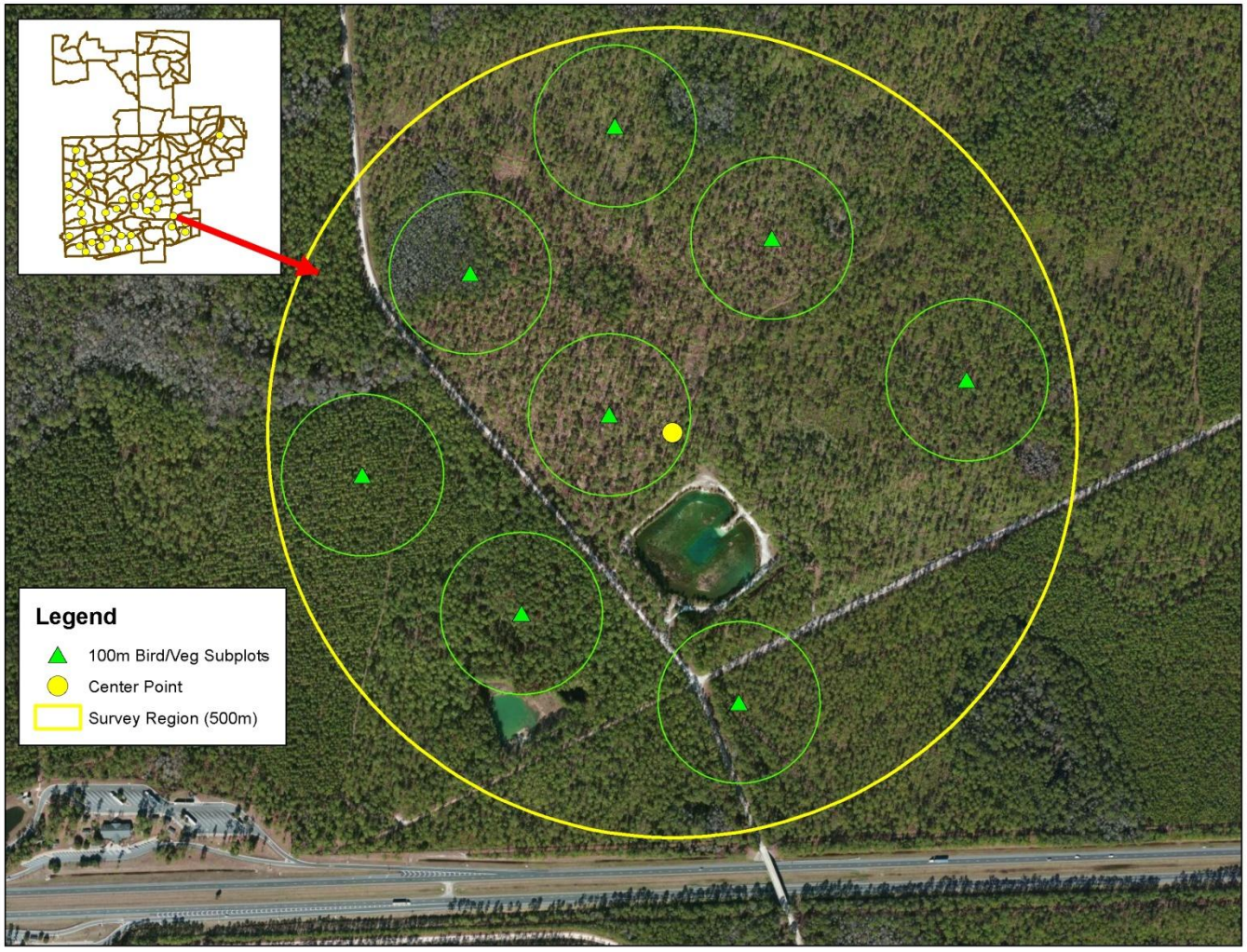
Third Party Monitoring

- Conducted by Tall Timbers Research Station
- 40 Sampling regions 500m circle (196 ac)



Third Party Monitoring

- Each sampling region includes 8 subplots for bird and vegetation monitoring



Questions ?